Jordan Covered Bridge
Spanning Thomas Creek, County Road 829
Scio vicinity
Linn County
Oregon

HAER No. OR-8

PHOTOGRAPHS

WRITTEN DESCRIPTIVE AND HISTORICAL DATA

Historic American Engineering Record
Western Region
National Park Service
Department of the Interior
San Francisco, California 94102

HISTORIC AMERICAN ENGINEERING RECORD

Jordan Covered Bridge

HAER No. OR-8

Location:	Spanning Thomas Creek on Jordan Road (County Road 829) Scio vicinity, Linn County, Oregon UTM: Zone 10 E523970 N4952370 Quad: Snow Peak, Oregon
Date of Construction:	1937
Present Owner:	Linn County Board of Commissioners Linn County Courthouse Albany, Oregon 97321
Significance:	The Jordan Covered Bridge is a component of Oregon's collection of covered bridges. The structure is a Howe truss featuring the open sides typical of Linn County construction.
Cultural Resource Specialist:	Maxine Banks, March 1985
Transmitted by:	Jean P. Yearby, HAER, 1986

The Jordan Covered Bridge is located on Jordan Road (County Road 829), just south of the junction with State Highway 226 in Linn County, Oregon. The small rural community of Jordan is one mile southeast of the bridge, and the town of Scio is approximately six miles to the west. The structure spans Thomas Creek, a tributary of the South Santiam River, near its confluence with Jordan Creek.

The bridge is 17 feet wide and has a total length of 148 feet including a clear timber span of 90 feet and 58 feet of timber trestle approaches, containing in all approximately 6,600 square feet. The wooden housing covering the central span is approximately 30 feet high from the base of the skirting to the ridgepole of the gable. (See drawings #8070, 3776, and 5273.*)

The central span employs a Howe truss, which features iron stress rods as a means of support for wooden truss members. (See drawing #8071.*) Central sections of the side walls are open from the rafters to two feet from the deck, exposing the truss and stress rods. These large openings, along with the whitewashed interior, improve visibility for bridge users.

The exterior of the housing, which is painted white, is vertical board and batten with flared skirting at the base. (See drawing $4372.*) The gable roof is covered with corrugated sheet metal. Beams at the gable ends are exposed and visible at intervals along the bargeboards.

The portal arches were originally segmental, or rounded, but have been altered to a truncated rectangular shape. (See photo No. 18.) This slight change in portal design expands vertical clearance for large loads--primarily log trucks which operate in the area. The roadway surface on the bridge and approaches was originally wood decking, which was covered by asphalt in later years. Concrete abutments support the structure.

The Jordan Covered Bridge is basically unchanged from the original appearance. The most obvious alteration is the modification of the portal, which, in effect, is still compatible with the form and structural lines of the truss. The truncated rectangular style portal is used on many other Oregon covered bridges.

The bridge has been commonly known and referred to by most sources as the "Jordan Covered Bridge." Occasionally, in past years, the structure has been called the "Thomas Y Bridge." In the absence of evidence to the contrary, it is assumed that the bridge was so-named because of its geographic location on the main steam of the "Y" formed by the confluence of Thomas and Jordan Creeks.

---

* A description of these drawings and their relevance to construction of the Jordan Covered Bridge is given in Appendix A.

In any event, the name familiar to historians or others who might wish to reference documentation on this structure would be Jordan Covered Bridge.

The site chosen for construction of this covered bridge has both aesthetic an historic appeal. Like the pioneers' bridges, the structure complements its setting and becomes a feature of the rural landscape in much the same picturesque way as farm buildings. Prior to 1937, an older style, unpainted covered bridge was located on this site.

According to Oregon Geographic Names, the community of Jordan was named by Joab Powell, Linn County's pioneer circuit-rider preacher, who made the choice in commemoration of the Valley of the Jordan in Palestine. Thomas Creek was named after Frederick Thomas, who filed a Donation Land Claim in the area in 1846.

The Jordan Covered Bridge is located near the site of the former Jordan Post Office, established in August 10, 1874. The facility was closed on October 21, 1905, when rural free delivery was extended to the region. In addition to the post office, the site was the location for two mills, a cheese factory and a power plant for the town of Scio. The only structure to survive is the dam 200 feet upstream from the covered bridge. The dam created an impoundment east of the bridge and provided a swimming hole used frequently over the years.

The natural setting of the bridge has experienced little change since it was constructed. Evergreens and deciduous trees and shrubs line the streambanks and cover the nearby hillsides. Land use in the vicinity of the bridge continues to be rural in nature with few other structures in evidence. A farm complex is located approximately 400 feet to the southeast.

The Jordan and Scio residents are well aware of the value of such historic resources. In 1978, a group of twenty-five 6th, 7th an 8th grade students from Scio Middle School organized "The Scio Bridge Brigade." They promoted a tour of covered bridges in the Scio area, billing the event as a one-day visit to "the largest single accessible concentration of covered bridges in the world." The young sponsors regarded the Jordan Covered Bridge as "perhaps the prettiest of the Scio covered bridges" in their brochure advertising the tour.

The Scio Bridge Brigade was nationally recognized for their promotion of covered bridge preservation in May 1979, when they received the "Award for Young Preservationists," from the National Trust for Historic Preservation.

At present, Linn County has a total of ten covered bridges, eight of which are open to vehicular traffic. Eight of these picturesque structures are in the vicinity of Scio. (See map, Figure 1.) Five span Thomas Creek, which covered bridge enthusiasts believe is a world record for extant covered bridges over a single stream.

The Jordan Covered Bridge is one of 52 extant covered spans in the State of Oregon, which has the largest collection of these historic structures in the west and one of the largest in the nation. The Oregon Covered Bridges Thematic Nomination defines a covered bridge as a "housed truss which was initially weight-bearing, at least, and constructed to span a topographic feature."

Oregon began building these barn-like housing over timber bridges in the 1850s. Pioneer builders adopted this technique, having discovered that covered truss and chord timbers lasted up to five times longer than those in open spans. This was particularly true in the damp climate of western Oregon, where most of the State's covered bridges were constructed.

Out of necessity, pioneers built with the materials at hand. Since steel and concrete supplies were meager and far away, they used Douglas Fir, which was abundant in western Oregon and well-suited to bridge construction. These timbers could be felled and hewn with broadaze and adze on the site--often resulting in one-piece truss chords.

In his "A Century of Covered Bridges," author Lee H. Nelson states that the pioneer "often demonstrated a remarkable understanding of nature in the selection of a site for bridge building. Thus he used nature rather than forcing her as we often do today.. The natural Oregon background provides a setting for these airborn barns that makes them appear indigenous rather than contrived...The Oregon covered bridge truly is of a piece with the landscape."

The majority of Oregon's covered bridges and all of those in Linn County are Howe Truss, a style developed in 1830 by William Howe, a relative of Elias Howe, inventor of the lock-stitch sewing machine. The Howe Truss appeared in Oregon following the floods of 1881 when a substantial number of covered bridges were destroyed. New replacements ususally adopted the Howe design to provide greater structural strength and a longer life expectancy.

Oregon counties constructed and maintained their own bridges in the 19th century and the early years of the 20th. Linn, like several other western Oregon counties, has a long-standing tradition of covered bridge building.

During the peak of covered bridge construction between 1905 and 1925, Oregon's inventory is believed to have reached a total of 450. The remaining examples range in date of construction from 1914 to 1963. Of the 52 extant covered bridges, 35 were built in the 1920s and 1930s. The Jordan Covered Bridge is one of this group, having been constructed in 1937.

Linn County, like the other Oregon counties that built covered bridges, developed their own individual style, a tradition which continued in later years. Prior to 1930, Linn's housed structures featured square portals having angled ends. After that time, the county adopted one of the designs offered

by the State Highway Department, which was by then assisting county governments with bridge construction. Frank Kaiser of Albany was the builder employed by the county, according to the Statewide Inventory of Historic Sites and Buildings.

The design chosen and modified by Linn County has become identified with its covered bridge and, with one exception, is exclusive to this county. The unique feature of this design is the open sides exposing the diagonals of the truss from the rafters to two feet from the deck. This style, in addition to providing greater visibiliy, minimizes wind resistance of the structure. Linn County engineers also maintained that the exposed sides facilitated faster drying of the wood than the more enclosed styles used by other counties.

The open-sided style of housing provides a unique view both from the interior and exterior of the structure. (See Photo No. 15.) From an engineering perspective, the exposed diagonals demonstrate how a truss works to distribute stresses of structure support and live loads. Aesthetically, the design imparts an open, airy feeling, framing the landscape in diamond-shaped patterns reminiscent of beveled or leaded glass windows. (See Photo No. 3.) For these reasons, the Linn County style is regarded by some covered bridge enthusiasts as perhaps the most appealing design in Oregon's collection. Of the ten extant covered bridges in Linn County, seven, including the Jordan Covered Bridge, use this design.

The early decades of the 20th century produced refined development of steel structures, but the metal shortage of World War I and the economic depression of the 30s prolonged the construction of timber bridges. In the last several decades, few covered timber spans have been built due to material, labor and maintenance costs, and the increasing demand for heavier load-bearing structures.

The number of covered bridges in Oregon has decreased nearly 50 percent in the last 20 years, but public interest in the old "airborn barns" has increased markedly in the last decade. Perhaps the reason for this sentiment is best described by author Nelson:*

> "It is the barn-like covering of course, that removes the covered bridges from the realm of the structural academics and puts it into the realm of folk architecture. The "romantic picturesqueness" portrayed in the Sunday supplement is a modern reaction, not a consciously attempted features. But to modern eyes there is something undeniably attractive about covered bridges. The apparent affinity of a covered bridge with its site, its naive functionalism and its symbolic representation of a by-gone day all contribute to the pleasant quality that is characteristic of the covered bridge."

---

* Lee H. Nelson, A Century of Oregon Covered Bridges.

In March 1980, 46 of Oregon's covered bridges were listed in the National Register of Historic Places. The Jordan Covered Bridge is one of ten Oregon covered bridges which were not included in the thematic nomination of the request of the individual counties involved. Since 1980, three of the listed and one of the unlisted bridges have been removed or demolished.

In October 1983, a request for Determination of Eligibility was prepared and submitted to the State Historic Preservation Officer, who concurred that the Jordan Covered Bridge was eligible. In February of 1984, the Department of the Interior determined that the bridge was eligible for inclusion in the National Register of Historic Places.

BIBLIOGRAPHY

Cockrell, Nick and Bill, Maps and Drawings by Sheryl Cockrell. Roofs Over River, A Guide to Oregon's Covered Bridges. The Touchstone Press, Beaverton, Oregon, 1978.

Nelson, Lee H. A Century of Oregon Covered Bridges, 1851-1952. Oregon Historical Society, Portland, Oregon, 1960. Reprinted from Oregon Historical Quarterly, June 1960.

Potter, Elisabeth Walton, with special assistance by Cynthia Swanson and Nick Cockrell. Oregon Covered Bridges Thematic Group Nomination. Oregon State Historic Preservation Office, Salem, Oregon. 1977.

McArthur, Lewis A. Oregon Geographic Names, Fourth Edition. Oregon Historical Society, Portland, Oregon. 1974.

State Parks Branch, Oregon Department of Transportation. Statewide Inventory of Historic Sites and Buildings. State Historic Preservation Office, Salem, Oregon.

Richards, Carl P. Covered Bridges in Oregon. Unpublished. Oregon State Highway Department. 1952/

Corning, Howard McKinley. Dictionary of Oregon History. Binford and Mort, publishers, Portland, Oregon. 1956.

Salem Magazine. "Covered Bridges, the Salem Area Tour Guide." Salem, Oregon. 1979.

Covered Bridge Society of Oregon. The Bridge Tender. Various issues.

APPENDIX A

Differences between Jordan Covered Bridge and the Attached Stock Drawings

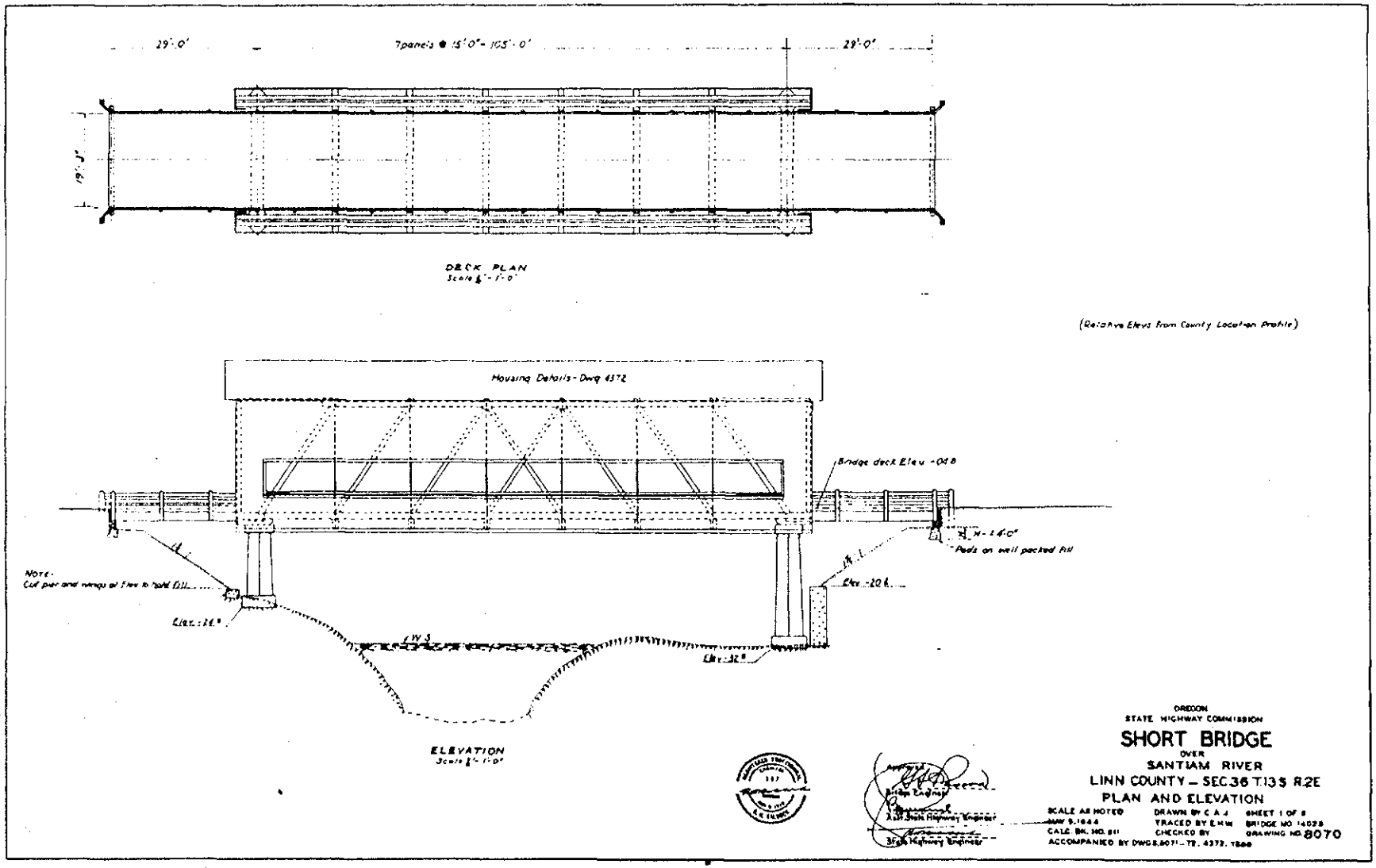
The general drawings included in this documentation are the same basic construction as Jordan Covered Bridge. The obvious differences are related to structure length, portal design, roof covering and window style on side elevations.

The Jordan Covered Bridge is 90 feet long and has a truncated rectangular portal, metal roof with 5 exposed beams at the gable ends and open central sections on side elevations.

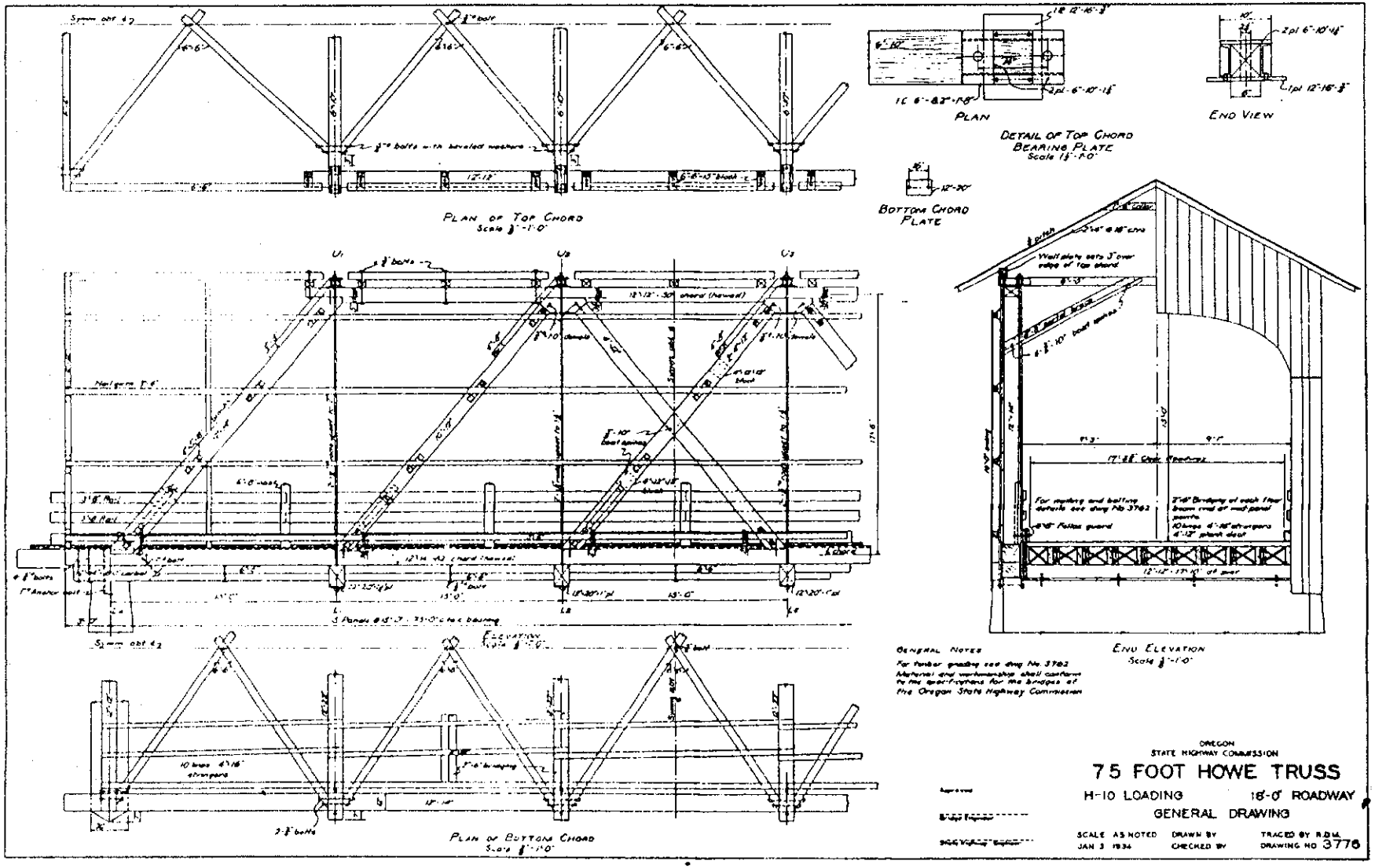
The following table lists each stock drawing and indicates which features differ from the style of the Jordan Covered Bridge. (Features which are not shown on a given drawing are so noted.)

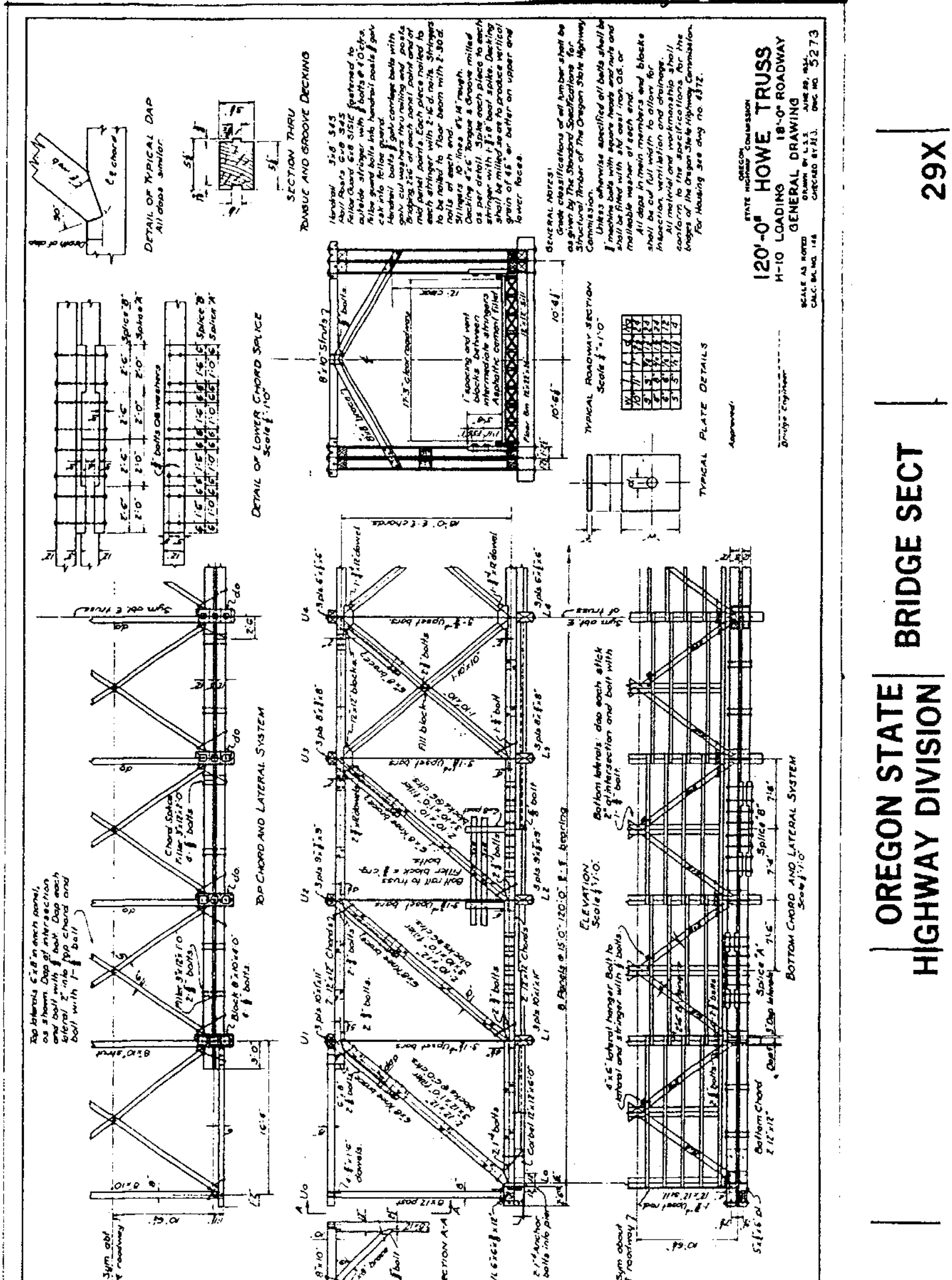
Drawing	Length	Portal	Roof	Windows
#8070	105'	Not shown	Not shown	Ribbon
#8071	105'	Triangular	Not shown	Not shown
#4372	Not shown	Squared	Shingle*	Ribbon and truncated triangular
#3776	75'	Rounded	Not shown	Not shown
#5273	120'	Triangular	Not shown	Not shown

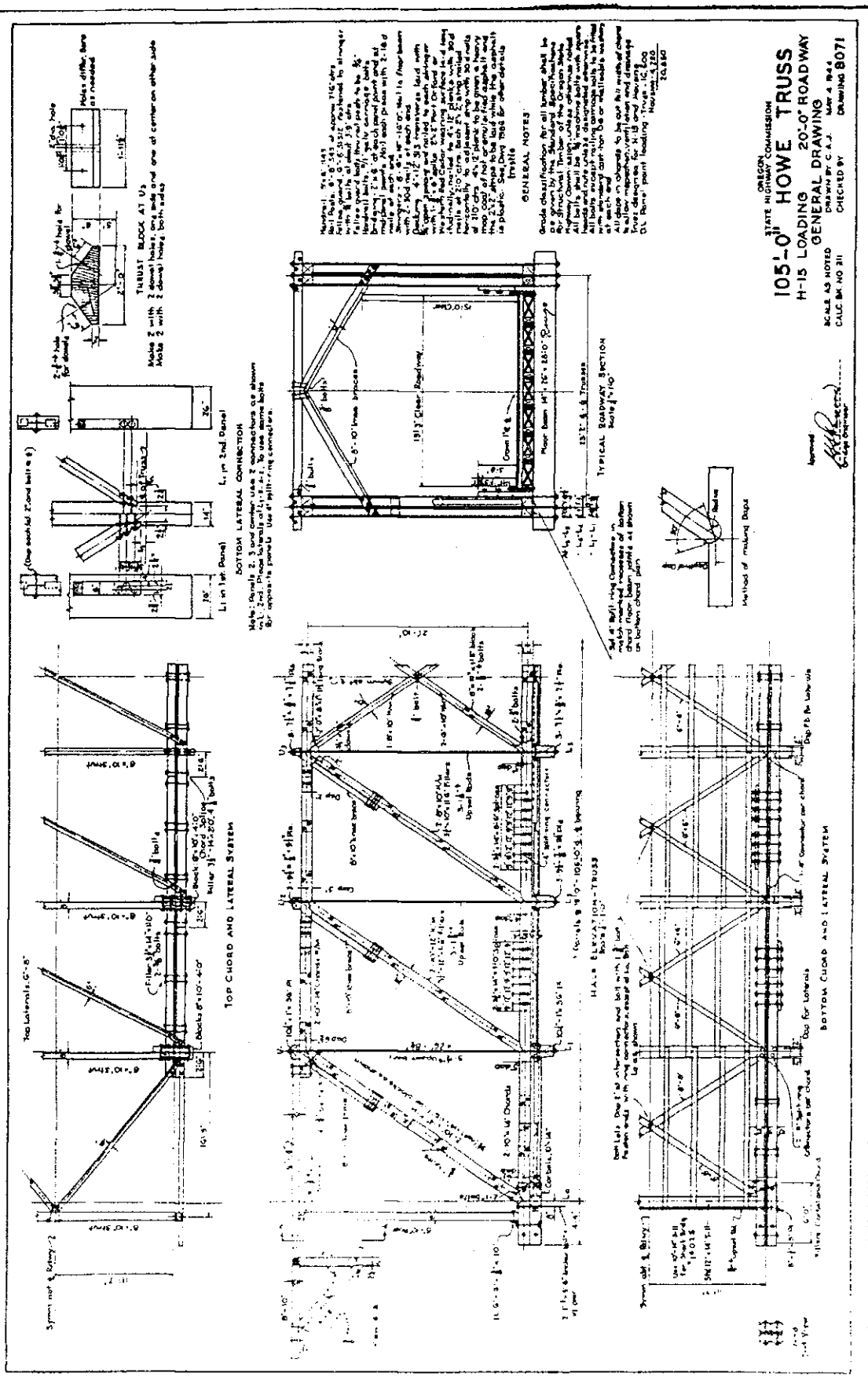
* Three exposed beams at gabled ends.



OREGON STATE HIGHWAY DIVISION | BRIDGE SECT | 29X

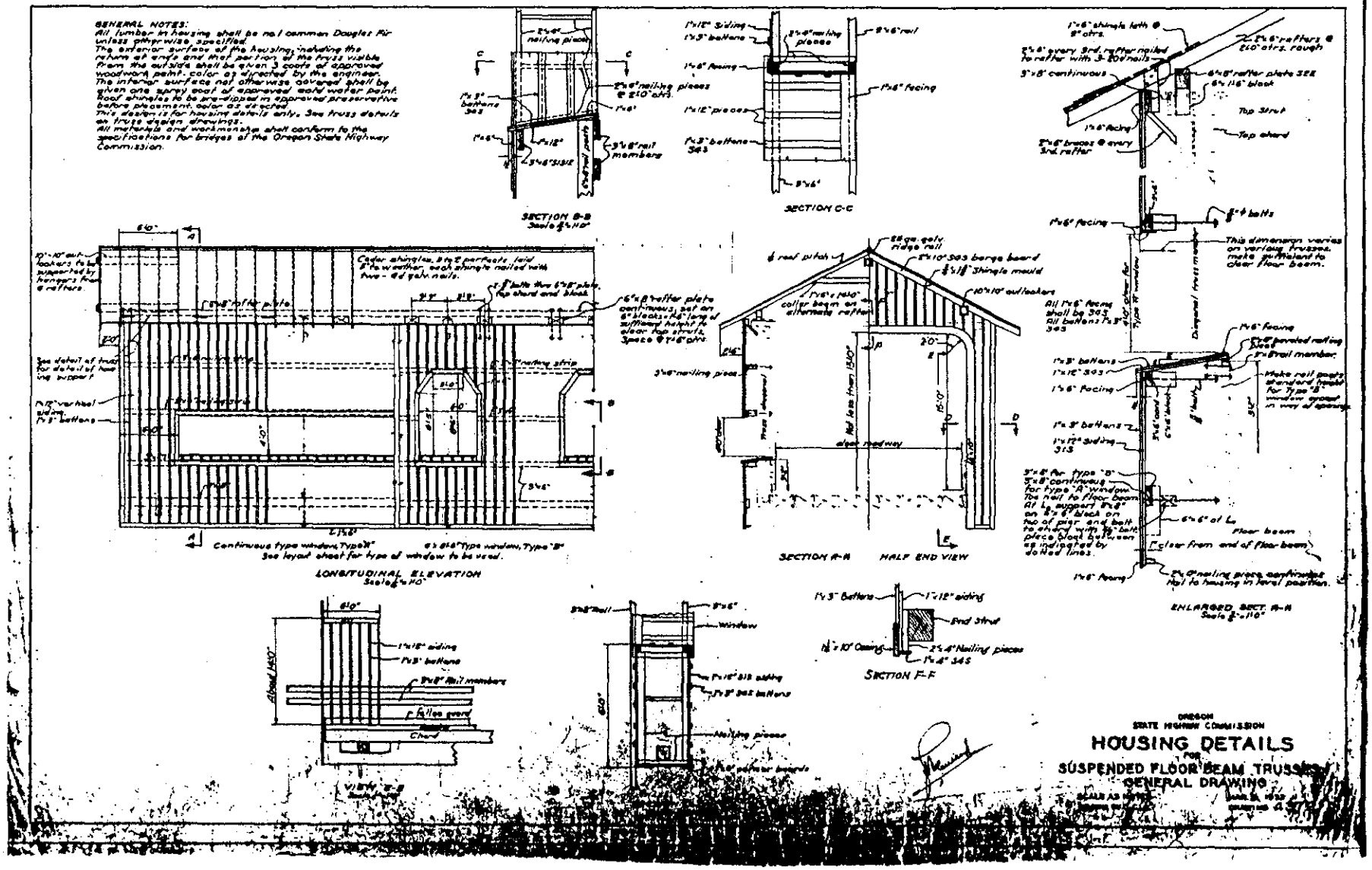



TOP CHORD AND LATERAL SYSTEM
ELEVATION
BOTTOM CHORD AND LATERAL SYSTEM
SECTION A-A
DETAIL OF LOWER CHORD SPLICE
DETAIL OF TYPICAL DAP
SECTION THRU TONGUE AND GROOVE DECKING
TYPICAL ROADWAY SECTION
TYPICAL PLATE DETAILS
GENERAL NOTES:
OREGON STATE HIGHWAY COMMISSION
120'-0" HOWE TRUSS
H-10 LOADING 18'-0" ROADWAY
GENERAL DRAWING
5273
29X
OREGON STATE HIGHWAY DIVISION
BRIDGE SECT



OREGON STATE HIGHWAY DIVISION | BRIDGE SECT

29X



OREGON STATE HIGHWAY DIVISION | BRIDGE SECT | 29X